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31. (Once Amended) Staphylokinase derivatives having essentially the amino acid sequence as depicted in figure 1 in which one or more amino acids have been replaced by another amino acid thus reducing the reactivity with a panel of murine monoclonal antibodies provided that the other amino acid is not alanine, wherein the staphylokinase derivatives are chemically modified with polyethylene glycol and are characterized by a significantly reduced plasma clearance.

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34. (Once Amended) Staphylokinase derivatives SakSTAR (K35X, G36X, E65X, K74X, E80X, D82X, K102X, E108X, K109X, K121X, K130X, K135X, K136X, +137X) having the amino acid sequence as depicted in figure 1 in which one or more of the amino acids Lys in position 35, Gly in position 36, Glu in position 65, Lys in position 74, Glu in position 80, Asp in position 82, Lys in position 102, Glu in position 108, Lys in position 109, Lys in position 121, Lys in position 130, Lys in position 135 and/or Lys in position 136 have been replaced with other amino acids provided that the other amino acid is not alanine and/or in which one amino acid has been added at the COOH-terminus, thus altering the immunogenicity after administration in patients, without markedly reducing the specific activity, wherein the staphylokinase derivatives are chemically modified with polyethylene glycol and are characterized by a significantly reduced plasma clearance.

35. (Once Amended) Staphylokinase derivatives listed in Tables 1, 3, 4, 5, 6, 7, 8, 13, 19, and 20, having the amino acid sequence as depicted in figure 1 in which the indicated amino acids have been replaced by other amino acids thus reducing the absorption of SakSTAR-specific antibodies from plasma of patients treated with staphylokinase, without reducing the specific activity, provided that at least one amino acid is replaced with an amino

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cont acid other than alanine, wherein the staphylokinase derivatives are chemically modified with polyethylene glycol and are characterized by a significantly reduced plasma clearance.

37. (Once Amended) SakSTAR (E65D, K74R, E80A, D82A, K130T, K135R) having the code SY19 which is chemically modified with polyethylene glycol and is characterized by a significantly reduced plasma clearance.

D³ 38. (Once Amended) SakSTAR (K35A, E65Q, K74R, E80A, D82A, T90A, E99D, T101S, E108A, K109A, K130T, K135R) having the code SY161 which is chemically modified with polyethylene glycol and is characterized by a significantly reduced plasma clearance.

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D⁴ 46. (Once Amended) Staphylokinase derivatives as claimed in claim 45, wherein selected amino acids in the NH₂-terminal region of 10 amino acids, are substituted with Cys, which is chemically modified with polyethylene glycol and is characterized by a significantly reduced plasma clearance and maintained thrombolytic potency upon single intravenous bolus administration at a reduced dose.

REMARKS

Claims 31-60 are currently pending in this application. This Amendment amends claims 31, 34, 35, 37, 38, and 46 to recite the staphylokinase derivatives being chemically modified with polyethylene glycol ("pegylated") and having reduced plasma clearance. Support for the amendments to the claims can be found in the claims and on page